Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																		Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3001	~72 feet northwest of SLBS2102	Soil	0.5									X				X																						Define northwestern lateral extent of cadmium and silver exceeding SCLs from 0 to 0.5 foot bgs at SLBS2102.	None.
		Soil	6									X				X																							
SLBS3002	~71 feet north of SLBS2102	Soil	0.5									X				X																						Define northern lateral extent of cadmium and silver exceeding SCLs from 0 to 0.5 foot bgs at SLBS2102.	The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	6									X				X																							
SLBS3003	~66 feet northeast of SLBS2102	Soil	0.5									X				X																						Define northeastern lateral extent of cadmium and silver exceeding SCLs from 0 to 0.5 foot bgs at SLBS2102.	None.
		Soil	6									X				X																							
SLBS3004	~21 feet west of SLBS2049	Soil	0.5						X														X							X								Define northeastern lateral extent of cadmium, silver, and zinc exceeding SCLs from 0 to 0.5 foot bgs at SLBS2101. Define northwestern lateral extent of DioxinFuran_TEQ_Bird and DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2112.	None.
		Soil	6						X														X							X								
SLBS3005	~36 feet northwest of SLSV2036	Soil	1.5			X																																Define northwestern lateral extent of benzo(a)pyrene exceeding SCLs from 0.5 to 1.5 feet bgs at SLBS2046.	The 6-foot-bgs sample was collected at 5.8 feet bgs because of bedrock refusal at 5.8 feet bgs.
		Soil	6			X																																
SLBS3006	~53 feet east of SLBS2046	Soil	1.5			X																																Define northeastern lateral extent of benzo(a)pyrene exceeding SCLs from 0.5 to 1.5 feet bgs at SLBS2046.	The 6-foot-bgs sample was collected at 5.9 feet bgs because of bedrock refusal at 5.9 feet bgs.
		Soil	6			X																																
SLBS3007	~23 feet northwest of SLSV2037	Soil	0.5													X							X															Define northwestern lateral extent of DioxinFuran_TEQ_Mammal and Aroclor-1254 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2136. Define northwestern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0.5 to 1.5 feet bgs at SLBS2136. Metals exceeding SCLs in SLBS2136 are already bound to the northwest by SLBS2047. Metals exceeding SCLs in SLBS2137 are already bound to the west by SLBS2047.	None.
		Soil	6													X							X															
SLBS3008	~48 feet northeast of SLBS2137 at RFI Site Boundary	Soil	0.5						X							X							X														This location is a drainage channel location downgradient of both SLBS2136 and SLBS2137. The downgradient extent of cadmium, lead, zinc, and manganese exceeding SCLs at drainage channel SLBS2136 are bound by the downgradient drainage channel location SLBS2137. The downgradient extent of DioxinFuran_TEQ_Mammal and Aroclor-1254 exceeding SCLs from 0 to 0.5 foot bgs and dioxinFuran_TEQ_Mammal exceeding SCLs from 0.5 to 1.5 feet bgs at SLBS2136 are not bound by the downgradient drainage channel SLBS2137. Therefore, SLBS3008 will be analyzed for dioxins and PCBs. It will also define northern lateral extent of chromium, copper, and nickel exceeding SCLs from 0.5 to 1.5 feet bgs at SLBS2137.	None. The "Base of alluvium" sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	Base of alluvium						X							X							X															

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																															Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3009	~17 feet west of SLBS2150	Soil	0.5																X				X													Define northern lateral extent of DioxinFuran_TEQ_Mammal and Aroclor-1254 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2037. Bis(2-ethylhexyl)phthalate exceeding SCLs from 0 to 0.2 foot bgs at SB_STL-IV1-2 is bound by SLBS2037.	The 6-foot-bgs sample was collected at 5 feet bgs because of bedrock refusal at 5 feet bgs.
		Soil	6																X				X														
SLBS3010	~64 feet west of SLBS2002	Soil	0.5																X				X													Define western lateral extent of DioxinFuran_TEQ_Bird, DioxinFuran_TEQ_Mammal, and aroclor 5460 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2002. Define western lateral extent of DioxinFuran_TEQ_Mammal and hexavalent chromium exceeding SCLs from 5 to 6 feet bgs at SLBS2002. Define northwestern lateral extent of DioxinFuran_TEQ_Mammal and exceeding SCLs from 0 to 0.5 foot bgs at SLBS2138. Provide a Vapor Hold for SLSV3004.	The 6-foot-bgs sample was not collected because of bedrock refusal at 3.5 feet bgs. The "As deep as possible" sample was collected at 3.5 feet bgs because of bedrock refusal.
		Soil	As deep as possible >1.5	VH																																
		Soil	1.5																								X									
		Soil	6																X				X				X									
SLBS3019	~89 feet southwest of SLSV02	Soil	1.5																										X							Sample at former Building 3254 for isopropyl alcohol based upon new chemical found in BNA03220179.	The 6-foot-bgs sample was not collected because of bedrock refusal at 2.7 feet bgs.
		Soil	6																										X							
SLBS3020	~39 feet southeast of SLBS2011	Soil	0.5																					X												Sample at former Building 3747 for cyanide based upon new chemical lead thiocyanate found in BNA02766562. Sufficient lead data exist in the area.	None.
		Soil	6																					X													
SLBS3022	~31 feet southeast of SLBS2049	Soil	0.5								X				X				X				X													Define southwestern lateral extent of benzo(a)pyrene exceeding SCLs from 1.5 to 2.5 feet bgs at SLBS2046. Define northern lateral extent of DioxinFuran_TEQ_Bird, DioxinFuran_TEQ_Mammal, cadmium, silver, and Aroclor-1254 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2112. Define northern lateral extent of hexavalent chromium exceeding SCLs from 5 to 6 and 9 to 10 feet bgs at SLBS2112. Define northeastern lateral extent of cadmium, and silver exceeding SCLs from 0 to 0.5 foot bgs at SLBS2114. Define northern lateral extent of cadmium, silver, and benzo(a)pyrene exceeding SCLs from 1 to 2 feet bgs at SLTS1507.	The 6- and 10-foot-bgs samples were not collected because of bedrock refusal at 3.5 feet bgs.
		Soil	1.5			X																						X								
		Soil	6			X					X				X				X				X					X								
		Soil	10																									X								
SLBS3031	~14 feet north of SLBS1053	Soil	0.5																					X												Sample at former Building 3274 for cyanide based upon new chemical lead thiocyanate found in BNA02766562. Sufficient lead data exist in the area.	The 6-foot-bgs sample was not collected because of bedrock refusal at 2 feet bgs.
		Soil	6																					X													
SLBS3032	~62 feet west of SLBS1417	Soil	0.5						X								X						X													Define southwestern lateral extent of sodium exceeding SCLs from 5 to 6 feet bgs at SLBS1037. Define southern lateral extent of nickel exceeding SCLs from 0 to 1 foot bgs at SLBS1054. Define southwestern lateral extent of sodium exceeding SCLs from 3 to 4 feet bgs at SLBS2074. Define northern lateral extent of antimony	The "As deep as possible" sample was collected at 7 feet bgs. 1,4 dioxane was inadvertently not collected for the 7-foot-bgs sample.
		Soil	As deep as possible >1.5	VH			VH																									VOCs				
		Soil	1.5			X																										SVOCs				

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
		Soil	6			X			X								X						X		X								SVOCs				exceeding SCLs from 0 to 0.5 foot bgs at SLBS2141. Define eastern lateral extent of cadmium and lead exceeding SCLs from 0 to 0.5 foot bgs at SLBS2149. Fluoride exceeding SCLs from 4.5 to 5 feet bgs at SLBS1416 and from 3 to 4 feet bgs at SLBS2074 is bound by existing samples. Vapor Hold for SLSV3008. Sample at former Building 3265 based upon new chemical dioxolane found in BNA00681377 (8270 with TICs).	
SLBS3033	~35 feet west of SLBS2141	Soil	0.5						X										X				X													Define western lateral extent of antimony exceeding SCLs from 0 to 0.5 foot bgs at SLBS2141. Define southern lateral extent of cadmium and lead exceeding SCLs from 0 to 0.5 foot bgs at SLBS2149. Define southeastern lateral extent of DioxinFuran_TEQ_Bird, DioxinFuran_TEQ_Mammal, antimony, cadmium, Aroclor-1254, and Aroclor-1260 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2155. Provide Vapor Hold for SLSV3001.	None.
		Soil	As deep as possible >1.5	VH																																	
		Soil	6						X										X				X														
SLBS3034	~49 feet southeast of SLBS1055	Soil	0.5							X		X							X				X													Define southeastern lateral extent of DioxinFuran_TEQ_Bird, DioxinFuran_TEQ_Mammal, antimony, cadmium, Aroclor-1254, and Aroclor-1260 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2155. Benzo(a)pyrene exceeding SCLs from 0 to 0.5 foot bgs at SLBS2155 is bound by SLBS1055.	None.
		Soil	6							X		X							X				X														
SLBS3035	~47 feet northeast of SLSV2051	Soil	0.5							X		X							X				X													Define northwestern lateral extent of benzo(a)pyrene exceeding SCLs from 5 to 6 feet bgs at SLBS1056. Define southwestern lateral extent of DioxinFuran_TEQ_Bird, DioxinFuran_TEQ_Mammal, antimony, cadmium, Aroclor-1254, and Aroclor-1260 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2155.	The 10-foot-bgs sample was not collected because of bedrock refusal at 4.1 feet bgs. The 6-foot-bgs sample was collected at 4.1 feet bgs because of bedrock refusal.
		Soil	1.5			X																															
		Soil	6			X				X		X							X				X														
		Soil	10			X																															
SLBS3036	~31 feet southwest of SLBS1058	Soil	0.5									X																									Define southern lateral extent of cadmium exceeding SCLs from 0 to 0.5 foot bgs at SLBS2159.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6									X																									
SLBS3037	~41 feet northwest of SLSV2052	Soil	0.5									X																									Define northwestern lateral extent of cadmium exceeding SCLs from 0 to 0.5 foot bgs at SLBS2159.	The 6-foot-bgs sample was not collected because of bedrock refusal at 2.5 feet bgs.
		Soil	6									X																									
SLBS3039	~87 feet southeast of SWBS2076	Soil	0.5																						X											Sample at former Building 3253 for cyanide based upon new chemical lead thiocyanate found in BNA02766562. Sufficient lead data exist in the area.	The 6-foot-bgs sample was collected at 4 feet bgs because of bedrock refusal at 4 feet bgs.
		Soil	6																						X												

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																	Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3045	~9 feet southwest of SLBS2073	Soil	0.5																X				X									X	X				Define southern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2030. Define southern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2083. Define southern lateral extent of Aroclor-1254 and Aroclor-1260 exceeding SCLs from 0.5 to 1 foot bgs at SLBS2069. Define southern lateral extent of Aroclor-1254 and Aroclor-1260 exceeding SCLs from 0.5 to 1 foot bgs at SLBS2070. Define southern lateral extent of Aroclor-1254 and Aroclor-1260 exceeding SCLs from 0.5 to 1 foot bgs at SLBS2071. Metal and contamination to the east and fluoride contamination to the north of this location have been previously bound. The step-out sample distance exceeds 100 feet from some of these locations because this location helps define a CMS area boundary.	The 6-foot-bgs sample was collected at 3.5 feet bgs because of bedrock refusal at 3.5 feet bgs.
		Soil	6																X				X									X	X					
SLBS3054	~25 feet north of SLBS1409	Soil	1.5			X																															Define southwestern lateral extent of di-n-butylphthalate exceeding SCLs from 0 to 1 foot bgs at SLBS1066. Metal contamination to the southeast of this location is bound by previous samples.	The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	6			X																																
SLBS3055	~6 feet north of SLBS1043	Soil	0.5							X		X											X														Define northwestern lateral extent of DioxinFuran_TEQ_Mammal and cadmium exceeding SCLs from 0 to 0.5 foot bgs at SLBS2081. This sample will be analyzed for antimony to replace the MRL exceedance in samples SLBS1043 and SLBS1065.	The 6-foot-bgs sample was not collected because of bedrock refusal at 2 feet bgs.
		Soil	6							**X**		**X**											**X**																
SLBS3057	~40 feet northeast of SLSV2053	Soil	0.5									X											X														Define northeastern lateral extent of cadmium exceeding SCLs from 0 to 1 foot bgs at SLBS1044. Define northern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2089. Define northwestern lateral extent of benzo(a)pyrene exceeding SCLs from 0.5 to 1.5 feet bgs at SLBS2146.	The 6-foot-bgs sample was not collected because of bedrock refusal at 2 feet bgs.
		Soil	1.5			X																																
		Soil	6			**X**						**X**											**X**																
SLBS3058	~35 feet northeast of SLSV2050	Soil	0.5									X																									Define northern lateral extent of cadmium and bis(2-ethylhexyl)phthalate exceeding SCLs from 0 to 1 foot bgs at SLBS1500. Define eastern lateral extent of bis(2-ethylhexyl)phthalate exceeding SCLs from 0.5 to 1.5 feet bgs at SLBS2147.	The 6-foot-bgs sample was not collected because of bedrock refusal at 1.5 feet bgs.
		Soil	1.5			X																																
		Soil	6			**X**						**X**																											
SLBS3059	~38 feet north of SLBS2121	Soil	0.5									X																									Define northeastern lateral extent of cadmium and bis(2-ethylhexyl)phthalate exceeding SCLs from 0 to 1 foot bgs at SLBS1500.	The 6-foot-bgs sample was not collected because of bedrock refusal at 1.7 feet bgs.
		Soil	1.5			X																																
		Soil	6			**X**						**X**																											
SLBS3060	~32 feet northeast of SLBS2044	Soil	0.5									X																									Define southeastern lateral extent of cadmium exceeding SCLs from 0 to 1 foot bgs at SLBS1500. The bis(2-ethylhexyl)phthalate exceeding SCLs from 0 to 1 foot bgs at SLBS1500 is bound by SLBS2121 and SLBS2044 to the southeast.	The 6-foot-bgs sample was collected at 3.5 feet bgs because of bedrock refusal at 3.5 feet bgs.
		Soil	6									X																										

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Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																	Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3062	~50 feet southeast of SLBS2153	Soil	0.5						X														X														Define southeastern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2153. Define southern lateral extent of DioxinFuran_TEQ_Bird, DioxinFuran_TEQ_Mammal, cadmium, copper, and lead exceeding SCLs from 0 to 0.5 foot bgs at SLBS2154.	The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs.
		Soil	6						X														X															
SLBS3063	~45 feet south of SLBS2145	Soil	0.5						X														X														Define western lateral extent of DioxinFuran_TEQ_Mammal and antimony exceeding SCLs from 0 to 0.5 foot bgs at SLBS2010. Define southeastern lateral extent of cadmium, lead, and zinc exceeding SCLs from 0 to 0.5 foot bgs at SLBS2034. Define southern lateral extent of cadmium exceeding SCLs from 0 to 0.5 foot bgs at SLBS2144. Define southern lateral extent of cadmium and zinc exceeding SCLs from 0 to 0.5 foot bgs at SLBS2145.	None.
		Soil	6						X														X															
SLBS3064	~46 feet southeast of SLBS2039	Soil	0.5						X																												Define southern lateral extent of cadmium, lead, and zinc exceeding SCLs from 0 to 0.5 foot bgs at SLBS2034. Define southeastern lateral extent of antimony and cadmium exceeding SCLs from 0 to 0.5 foot bgs at SLBS2039.	The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	6						X																												
SLBS3065	~48 feet southwest of SLBS2039	Soil	0.5							X		X																									Define southwestern lateral extent of antimony and cadmium exceeding SCLs from 0 to 0.5 foot bgs at SLBS2039.	None.
		Soil	6							X		X																									
SLBS3066	~26 feet southeast of SLTS1505	Soil	0.5																				X														Dioxins analysis is required to bound the west side of CMS area STL-IV-CMS-S2. Metal contamination to the east and SVOCs contamination to the north are bound by existing samples.	The 6-foot-bgs sample was collected at 4 feet bgs because of bedrock refusal at 4 feet bgs.
		Soil	6																				X															
SLBS3067	~15 feet southeast of SLBS2009	Soil	0.5																				X														Dioxins analysis is required to bound the west side of CMS area STL-IV-CMS-S1. Metal and SVOC contamination to the east is bound by existing samples.	None.
		Soil	6																				X															
SLBS3068	~31 feet southwest of SLBS1045	Soil	0.5						X														X														Define northwestern lateral extent of antimony, cadmium, lead, and zinc exceeding SCLs from 0 to 0.5 foot bgs at SLBS2084. Define northwestern lateral extent of copper exceeding SCLs from 3.5 to 4 feet bgs at SLBS2084. Define northwestern lateral extent of DioxinFuran_TEQ_Bird and DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2184.	The 6-foot-bgs sample was collected at 5 feet bgs because of bedrock refusal at 5 feet bgs. The sample location was moved 8 to 10 feet west to out of the road.
		Soil	6						X														X															

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Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3070	~47 feet northwest of SLBS2163	Soil	0.5						X										X				X														The 6-foot-bgs sample was collected at 4.5 feet bgs because of bedrock refusal at 4.5 feet bgs.
		Soil	6						X										X				X														Define western lateral extent of DioxinFuran_TEQ_Mammal and Aroclor-1254 exceeding SCLs from 0 to 0.5 foot bgs at SLBS2037. Bis(2-ethylhexyl)phthalate exceeding SCLs from 0 to 0.2 foot bgs at SB_STL-IV1-2 is bound by SLBS2037. Define northeastern lateral extent of cadmium exceeding SCLs from 0 to 1 foot bgs at SLBS1404. Define northeastern lateral extent of cadmium, lead, and zinc exceeding SCLs from 0 to 1 foot bgs at SLBS1012. Define northeastern lateral extent of cadmium exceeding SCLs from 0 to 1 foot bgs at SLBS1062.
SLBS3071	~26 feet north of SLBS1057	Soil	6															X																			The 10-foot-bgs sample was not collected because of bedrock refusal at 3 feet bgs. The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal.
		Soil	10															**X**																			Define northern lateral extent of sodium exceeding SCLs from 4.5 to 5.5 foot bgs at SLBS2104. The benzo(a)pyrene exceeding SCLs from 5 to 6 feet bgs at SLBS1056 is bound by previous samples to the southwest.
SLBS3072	~52 feet southwest of SLBS1057	Soil	6															X																			Define southern lateral extent of sodium exceeding SCLs from 4.5 to 5.5 foot bgs at SLBS2104.
		Soil	10															**X**																			The 10-foot-bgs sample was not collected because of bedrock refusal at 3.5 feet bgs. The 6-foot-bgs sample was collected at 3.5 feet bgs because of bedrock refusal.
SLBS3073	~16 feet southwest of SLBS2118	Soil	0.5									X											X														Define channel bank southwestern lateral extent of DioxinFuran_TEQ_Mammal and cadmium exceeding SCLs from 0 to 0.5 foot bgs and 0.5 to 1.25 feet bgs at SLBS2118. The 6-foot-bgs sample was not collected because of bedrock refusal at 1.2 feet bgs.
		Soil	6									**X**											**X**														
SLBS3074	~21 feet northeast of SLBS2118	Soil	0.5									X											X														Define channel bank eastern lateral extent of DioxinFuran_TEQ_Mammal and cadmium exceeding SCLs from 0 to 0.5 and 0.5 to 1.25 feet bgs at SLBS2118. The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs.
		Soil	6									**X**											**X**														
SLBS3075	~19 feet northeast of SLBS2119	Soil	0.5																				X														Define channel bank northeastern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2119. The 6-foot-bgs sample was collected at 4.5 feet bgs because of bedrock refusal at 4.5 feet bgs.
		Soil	6																				X														
SLBS3076	~23 feet north of SLBS2018	Soil	0.5							X	X												X														Define northern lateral extent of DioxinFuran_TEQ_Mammal, antimony, and arsenic exceeding SCLs from 0 to 0.5 foot bgs at SLBS2018. The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6							**X**	**X**												**X**														
SLBS3077	~41 feet west of SLBS2018	Soil	0.5							X	X												X														Define western lateral extent of DioxinFuran_TEQ_Mammal, antimony, and arsenic exceeding SCLs from 0 to 0.5 foot bgs at SLBS2018. The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6							**X**	**X**												**X**														
SLBS3078	~38 feet north of U5BS1026	Soil	0.5																				X														Define northern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2020. The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs.
		Soil	6																				**X**														
SLBS3079	~43 feet west of U5BS1700	Soil	0.5																				X														Define western lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2020. The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs.
		Soil	6																				**X**														
SLBS3080	~40 feet southeast of SLSV2011	Soil	0.5																				X														Define southeastern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2020. The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs.
		Soil	6																				**X**														

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																															Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3081	~75 feet east of SLSV2011	Soil	0.5							X													X														Define southwestern lateral extent of DioxinFuran_TEQ_Mammal and antimony exceeding SCLs from 0 to 0.5 foot bgs at SLBS2026.	The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs.
		Soil	6							**X**													**X**														
SLBS3082	~102 feet northeast of SLSV2011	Soil	0.5							X													X								X						Define northwestern lateral extent of DioxinFuran_TEQ_Mammal and antimony exceeding SCLs from 0 to 0.5 foot bgs at SLBS2026.	The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	6							X													X								X						
SLBS3083	~84 feet northwest of U9BS2004	Soil	0.5						X																												Define western lateral extent of aluminum, lithium, and potassium exceeding SCLs from 5 to 6 and 9 to 10 feet bgs at U9BS2005.	The 10 and 15-foot-bgs samples were not collected because of bedrock refusal at 7 feet bgs.
		Soil	6						X																												
		Soil	10						**X**																												
		Soil	15						**X**																												
SLBS3084	~55 feet north of U9SV2005	Soil	0.5						X																												Define northern lateral extent of aluminum, lithium, and potassium exceeding SCLs from 5 to 6 and 9 to 10 feet bgs at U9BS2005.	The 10 and 15-foot-bgs samples were not collected because of bedrock refusal at 3.5 feet bgs. The 6-foot-bgs samples were collected at 3.5 feet bgs because of bedrock refusal.
		Soil	6						X																												
		Soil	10						**X**																												
		Soil	15						**X**																												
SLBS3085	~57 feet north of U9BS2007	Soil	0.5						X																												Define eastern lateral extent of aluminum, lithium, and potassium exceeding SCLs from 5 to 6 and 9 to 10 feet bgs at U9BS2005. Define northern lateral extent of aluminum exceeding SCLs from 0 to 0.5 foot bgs at U9BS2007. Define northern lateral extent of lithium exceeding SCLs from 3.5 to 3.75 feet bgs at U9BS2007.	The 15-foot-bgs sample was not collected because of bedrock refusal at 10.5 feet bgs.
		Soil	6						X																												
		Soil	10						X																												
		Soil	15						**X**																												
SLBS3086	~53 feet southeast of U9SV2006	Soil	0.5						X																												Define downstream lateral extent of selenium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2004. Define southeastern lateral extent of lithium exceeding SCLs from 5 to 6 feet bgs at U9BS2006. Define western lateral extent of aluminum exceeding SCLs from 0 to 0.5 foot bgs at U9BS2007. Define western lateral extent of lithium exceeding SCLs from 3.5 to 3.75 feet bgs at U9BS2007.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs. The "Base of alluvium" sample was collected at 0.5 foot bgs because of bedrock refusal. The sample locations was moved 8 feet N-NW into the drainage.
		Soil	6						**X**																												
		Soil	Base of alluvium						X																												
SLBS3087	~43 feet southeast of U9BS2004	Soil	0.5									X		X																							Define southeastern lateral extent of selenium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2004. Define southwestern lateral extent of lithium exceeding SCLs from 5 to 6 feet bgs at U9BS2006.	The 6 and 10-foot-bgs samples were not collected because of bedrock refusal at 1.5 feet bgs.
		Soil	6									**X**		**X**																						
		Soil	10									**X**		**X**																						
SLBS3088	~84 feet southwest of U9BS2004	Soil	0.5											X																							Define upstream lateral extent of selenium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2004.	The "Base of alluvium" sample was collected at 0.5 foot bgs because of bedrock refusal at 0.5 foot bgs. The sample location was moved 8 feet N-NW into the drainage.
		Soil	Base of alluvium											X																						
SLBS3089	~59 feet west of U9BS2008	Soil	0.5									X		X																							Define western lateral extent of lithium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2008. Define upstream lateral extent of selenium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2009.	The "Base of alluvium"' sample was collected at 0.5 foot bgs because of bedrock refusal at 1.5 feet bgs.
		Soil	Base of alluvium									X		X																						
SLBS3090	~71 feet northeast of U9SV2008	Soil	0.5									X																									Define northeastern lateral extent of lithium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2008.	None.
		Soil	6									X																								
SLBS3091	~67 feet east of U9BS2009	Soil	0.5											X																							Define eastern lateral extent of selenium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2009.	The 6-foot-bgs sample was not collected because of bedrock refusal at 2 feet bgs.
		Soil	6											**X**																						
SLBS3092	~56 feet southwest of U9BS2009	Soil	0.5											X																							Define southwestern lateral extent of selenium exceeding SCLs from 0 to 0.5 foot bgs at U9BS2009.	The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	6											X																						

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3093	~71 feet north of BKND-7	Soil	0.5																				X														Define northern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0 feet bgs at BKND-7.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.7 foot bgs.
		Soil	6																				X															
SLBS3094	~78 feet east of BKND-7	Soil	0.5																				X														Define eastern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0 feet bgs at BKND-7.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6																				X															
SLBS3095	~69 feet southwest of BKND-7	Soil	0.5																				X														Define southwestern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0 feet bgs at BKND-7.	The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	6																				X															
SLBS3096	~66 feet north of BKND-6	Soil	0.5																				X														Define northern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0 feet bgs at BKND-6.	None.
		Soil	6																				X															
SLBS3097	~66 feet east of BKND-6	Soil	0.5																				X														Define eastern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0 feet bgs at BKND-6.	None.
		Soil	6																				X															
SLBS3098	~32 feet southwest of BKND-6	Soil	0.5																				X														Define southwestern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0 feet bgs at BKND-6.	None.
		Soil	6																				X															
SLBS3100	~29 feet west of SLBS1409	Soil	As deep as possible >1.5	VH																																Provide Vapor Hold for SLSV3002.	None. The "As deep as possible" sample was collected at 4.5 feet bgs because of bedrock refusal at 4.5 feet bgs.
SLBS3101	~4 feet south of SLSV2001	Soil	As deep as possible >1.5	VH																																Provide Vapor Hold for SLSV3005.	None. Soil Vapor sample SLSV3005 was collected so vapor hold not needed.
SLBS3102	~80 feet east of SLBS2026	Soil	0.5							X													X														Define eastern lateral extent of DioxinFuran_TEQ_Mammal and antimony exceeding SCLs from 0 to 0.5 foot bgs at SLBS2026.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6							X													X															
SLBS3103	~90 feet north of SLBS2018	Soil	0.5						X										X				X														The purpose of this location is to establish the concentration of target analytes in the drainage channel as it enters STL-IV from the east and upstream of where the channel meets the other drainage channel entering from the west near SLBS2018. Target analytes are those detected in soil at concentrations higher than their respective SCLs in the lower drainage basin and the lower part of the upper drainage basin of STL-IV.	The "Base of alluvium" and 1.5-foot-bgs samples were collected at 1 foot bgs because of bedrock refusal at 1 foot bgs.
		Soil	1.5			X																															
		Soil	Base of alluvium			X			X										X				X															
SLBS3104	~22 feet southeast of SLBS2018	Soil	0.5						X										X				X														The purpose of this location is to establish the concentration of target analytes in the drainage channel downgradient of where the other drainage channel enters from the west near SLBS2018 and in the drainage channel before it exits STL-IV to the east. Target analytes are those detected in soil at concentrations higher than their respective SCLs in the lower drainage basin and the lower part of the upper drainage basin of STL-IV.	The 1.5-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs. The "Base of alluvium" sample was collected at 0.5 foot bgs because of bedrock refusal.
		Soil	1.5			X																															
		Soil	Base of alluvium			X			X										X				X															

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																															Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3105	~281 feet east of SLSV2011	Soil	0.5						X										X				X													The purpose of this location is to establish the concentration of target analytes in the drainage channel downgradient of potential erosion from STL Cluster 10. Target analytes are those detected in soil at concentrations higher than their respective SCLs in the lower drainage basin and the lower part of the upper drainage basin of STL-IV.	The 1.5-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs. The "Base of alluvium" sample was collected at 0.5 foot bgs because of bedrock refusal.
		Soil	1.5			X																														
		Soil	Base of alluvium			X			X										X				X													
SLBS3106	~385 feet east of SLSV2011	Soil	0.5						X										X				X													The purpose of this location is to establish the concentration of target analytes in the drainage channel as it enters Unaffiliated Area 9 from the north. Target analytes are those detected in soil at concentrations higher than their respective SCLs in the lower drainage basin and the lower part of the upper drainage basin of STL-IV.	The 0.5-foot-bgs sample was collected at 0.3 feet bgs due to refusal on bedrock at 0.3 feet bgs, and "Base of alluvium" sample was not collected due to shallow refusal.
		Soil	1.5			X																														
		Soil	Base of alluvium			X			X										X				X													
SLBS3107	~30 feet north of SLBS2126	Soil	As deep as possible >1.5	VH																																Provide Vapor Hold for SLSV3003.	None. The "As deep as possible" sample was collected at 5.2 feet bgs because of bedrock refusal at 5.2 feet bgs.
SLBS3108	~23 feet east of SV-6.5-2	Soil	As deep as possible >1.5	VH																																Provide Vapor Hold for SLSV3006.	None. The "As deep as possible" sample was collected at 2.8 feet bgs because of bedrock refusal at 2.8 feet bgs.
SLBS3109	~18 feet southwest of SLBS27	Soil	0.5									X																								Define channel bank southwestern lateral extent of cadmium and di-n-butylphthalate exceeding SCLs from 0.5 to 0.5 foot bgs at SLBS27. The northeastern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 1 foot bgs at SLBS1052 is bound by SLBS2012 and upstream by SLBS27. The southern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot and 0.5 to 1.25 bgs at SLBS2118 is bound by SLBS2012 and downstream by SLBS27.	The 6-foot-bgs sample was not collected because of bedrock refusal at 3 feet bgs.
		Soil	1.5			X																														
		Soil	6			X						X																								
SLBS3110	~12 feet northeast of SLBS27	Soil	0.5									X																								Define channel bank northeastern lateral extent of cadmium and di-n-butylphthalate exceeding SCLs from 0.5 to 0.5 foot bgs at SLBS27. The upstream lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 1 foot bgs at SLBS1052 is bound by SLBS27. The downstream lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot and 0.5 to 1.25 bgs at SLBS2118 is bound by SLBS27.	The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs. The 1.5-foot-bgs sample was collected at 1 foot bgs because of bedrock refusal.
		Soil	1.5			X																														
		Soil	6			X						X																								
SLBS3111	~16 feet southwest of SLBS1052	Soil	0.5																				X													Define channel bank southwestern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 1 foot bgs at SLBS1052.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6																				X													
SLBS3112	~22 feet northeast of SLBS1052	Soil	0.5																				X													Define channel bank northeastern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 1 foot bgs at SLBS1052.	The 6-foot-bgs sample was collected at 0.5 foot bgs because of bedrock refusal at 1 foot bgs.
		Soil	6																				X													

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																															Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3113	~17 feet southwest of SLBS2119	Soil	0.5																				X														Define channel bank southern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 1 foot bgs at SLBS1052. Define channel bank southwestern lateral extent of DioxinFuran_TEQ_Mammal exceeding SCLs from 0 to 0.5 foot bgs at SLBS2119.	The 6-foot-bgs sample was not collected because of bedrock refusal at 1 foot bgs.
		Soil	6																				X														
SLBS3114	At U9BS2008	Soil	As deep as possible >1.5	X																																	Vapor Hold at U9BS2008 was not collected during the first field event even though a soil vapor sample could not be collected. To be collected as deep as possible, but at least greater than 1.5 feet bgs to evaluate VOCs.	None. The "As deep as possible" sample was collected at 1.5 feet bgs because of bedrock refusal at 1.5 feet bgs.
SLBS3115	~17 feet southwest of SLBS2119	Soil	As deep as possible >1.5	VH																																Sewer pipeline sample at former sewer station. Vapor hold for SLSV3007.	The 5-, 10-, and 14-foot-bgs samples were not collected because of bedrock refusal at 3.2 feet bgs. The "As deep as possible" sample was collected at 3.2 feet bgs because of bedrock refusal.
		Soil	5			X		X	X										X	X	X	X	X	X			X	X								
		Soil	10			X		X	X										X	X	X	X	X	X			X	X								
		Soil	14			H		H	H										H	H	H	H	H	H			H	H								
SLBS3116	At SLBS2022	Soil	As deep as possible >1.5	X																																Vapor Hold at SLBS2022 was not collected during the first field event even though a soil vapor sample could not be collected. To be collected as deep as possible, but at least greater than 1.5 feet bgs.	The "As deep as possible" sample was not collected because of bedrock refusal at 0.5 foot bgs.
SLBS3117	At SLBS2028	Soil	As deep as possible >1.5	X																																Vapor Hold at SLBS2028 was not collected during the first field event even though a soil vapor sample could not be collected. To be collected as deep as possible, but at least greater than 1.5 feet bgs.	None. The "As deep as possible" sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
SLBS3118	At SLBS2080	Soil	As deep as possible >1.5	X																																Vapor Hold at SLBS2080 was not collected during the first field event even though a soil vapor sample could not be collected. To be collected as deep as possible, but at least greater than 1.5 feet bgs.	The "As deep as possible" sample was not collected because of bedrock refusal at 0.5 foot bgs.
SLBS3119	At SLBS2089	Soil	As deep as possible >1.5	X																																Vapor Hold at SLBS2089 was not collected during the first field event even though a soil vapor sample could not be collected. To be collected as deep as possible, but at least greater than 1.5 feet bgs.	The "As deep as possible" sample was not collected because of bedrock refusal at 0.5 foot bgs.
SLBS3120	At SLBS2163	Soil	As deep as possible >1.5	X																																Vapor Hold at SLBS2163 was not collected during the first field event even though a soil vapor sample could not be collected. To be collected as deep as possible, but at least greater than 1.5 feet bgs.	None. The "As deep as possible" sample was collected at 4 feet bgs because of bedrock refusal at 4 feet bgs.
SLBS3121	At SLBS2004	Soil	0.5			X																														Air dispersion sampling for test stand (TPH and SVOCs at 0.5 foot and 2.5 feet bgs) not collected during the first field iteration at sample location SLBS2004.	None.
		Soil	2.5			X		X																												
SLBS3123	At SLBS2137	Soil	0.5			X																														Air dispersion sampling for test stand (TPH and SVOCs at 0.5 foot and 2.5 feet bgs) not collected during the first field iteration at sample location SLBS2137.	None.
		Soil	2.5			X		X																												

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3124	At SLBS2041	Soil	15																								X									The concentration of hexavalent chromium in soil at SLBS2041 appears to be increasing with depth (0.47 mg/kg at 1.5 ft bgs, 1.3 mg/kg at 6 ft bgs, and 3.9 mg/kg at 10 ft bgs), with the concentrations in the deeper two samples being above the SCL of 1.29 mg/kg. This sample is to determine the concentration of hexavalent chromium just above the refusal depth which has been 16 ft bgs in the past.	The 15-foot-bgs sample was collected at 14 feet bgs because of bedrock refusal at 14 feet bgs.
SLBS3125	At SLBS2064	Soil	8.75																				X													The concentrations DioxinFuran_TEQ_Bird and DioxinFuran_TEQ_Mammal in soil at SLBS2064 appear to be increasing with depth. The deepest sample collected to date at this location was collected at 5.5 to 6 ft bgs. The purpose of the proposed sample is to determine the concentration of dioxins/furans just above refusal depth which has been 8.75 ft bgs in the past.	The 8.75-foot-bgs sample was collected at 8 feet bgs because of bedrock refusal at 8 feet bgs.
SLBS3126	At SLBS2159	Soil	2	X																																A vapor hold was not analyzed in soil from 1.5 to 2 ft bgs in SLBS2159 even though a soil vapor samples could not be collected at SLSV2052. The purpose of SLBS3126 is to sample the 1.5 to 2 ft bgs interval for VOCs in soil at location SLBS2159.	None.
CFBS3005	~57 feet northeast of SLBS2002	Soil	0.5																X				X													Define western extent of dioxins at 0.5 and 6 feet bgs at CFBS2005 and eastern extent of dioxins at 0.5 foot bgs in CFBS2007. Define the northeastern extent of chromium VI at 5 feet bgs at SLBS2002. Define lateral extent of PCBs at 0.5 foot bgs in SLBS2139 and SLBS2002.	The 10-foot-bgs sample was not collected because of bedrock refusal at 6 feet bgs. Note that this location is located within the Compound A Facility RFI site reporting area; data for this location are reported in the DSFR for the Compound A Facility RFI site.
		Soil	1.5																								X										
		Soil	6																X				X					X										
		Soil	10																**X**				**X**					**X**										
SLBS3127	~100 feet southeast of SLBS3034.	Soil	0.5																X																	Soil sample collected at SLBS3034 from 0 to 0.5 ft bgs has Aroclor 1254 concentrations above SCLs. SLBS3034 is vertically bound. This new location is to bound SLBS3034 to the southeast.	None.
		Soil	6																X																		
SLBS3128	At SLBS3001.	Soil	11									**X**																									The purpose of SLBS3128 is to vertically bound the cadmium concentrations that exceed SCLs at SLBS3001 at 6 ft bgs.	The 11-foot-bgs sample was not collected because of bedrock refusal at 3.5 feet bgs.
SLBS3129	~74 feet west of SLBS3001.	Soil	0.5									X			X																					Soil samples collected at SLBS3001 from 0 to 0.5 ft bgs have cadmium and silver concentrations above SCLs and from 5.5 to 6 ft bgs have cadmium concentrations above SCLs. SLBS3129 is to bound SLBS3001 to the west. SLBS3129 is outside the STL-IV.	The 11-foot-bgs sample was not collected because of bedrock refusal at 3.5 feet bgs. The 6-foot-bgs sample was collected at 3.5 feet bgs because of bedrock refusal.
		Soil	6									X			X																						
		Soil	11									**X**																										
SLBS3130	~59 feet north of SLBS3001.	Soil	0.5									X			X																					Soil samples collected at SLBS3001 from 0 to 0.5 ft bgs have cadmium and silver concentrations above SCLs and from 5.5 to 6 ft bgs have cadmium concentrations above SCLs. SLBS3130 is to bound SLBS3001 to the north. SLBS3130 is inside the STL-IV.	None.
		Soil	6									X			X																						
		Soil	11									X																										

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																	Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3131	~64 feet north of SLBS3002.	Soil	0.5									X				X																					Soil samples collected at SLBS3002 from 0 to 0.5 ft bgs have cadmium and silver concentrations above SCLs. SLBS3002 is vertically bound. SLBS3131 is to bound SLBS3002 to the north. SLBS3131 is in V-ditch downslope from L7BS1003 and upslope from L7BS1400.	The 6-foot-bgs sample was collected at 3 feet bgs because of bedrock refusal at 3 feet bgs.
		Soil	6									X				X																						
SLBS3132	~65 feet north of SLBS3003.	Soil	0.5									X				X																					Soil samples collected at SLBS3003 from 0 to 0.5 ft bgs have cadmium and silver concentrations above SCLs. SLBS3003 is vertically bound. SLBS3132 is to bound SLBS3003 to the north.	None.
		Soil	6									X				X																						
SLBS3133	~100 feet north of SLBS3004.	Soil	0.5									X				X							X														Soil samples collected at SLBS3003 from 0 to 0.5 ft bgs have cadmium and silver concentrations above SCLs. SLBS3003 is vertically bound. Soil samples collected at SLBS3004 from 0 to 0.5 ft bgs have Dioxin_Furan_TEQ for Mammal and Bird at concentrations above SCLs. SLBS3133 is to bound SLBS3003 to the east and SLBS3004 to the north.	None.
		Soil	6									X				X							X														
SLBS3134	~100 feet east of SLBS3022.	Soil	1.5																				X					X									Soil at SLBS3022 1-1.5 ft bgs SVOCs and Cr6 above SCLs. SLBS3022 refusal at 3.5 ft bgs. SVOCs bound laterally by existing data. SLBS3134 bound Cr6 to the northeast. Cr6 being added to analyte list for SLBS3004 and SLB3005.	None.
		Soil	6																				X					X									
SLBS3135	~97 feet west of SLBS3083.	Soil	0.5									X																								X		Samples collected at SLBS3083 from 0 to 0.5 ft bgs have potassium concentrations above SCLs and from 5.5 to 6 ft bgs have lithium concentrations above SCLs. Refusal is at 7 ft bgs. SLBS3135 is to bound SLBS3083 to the west.	The 11-foot-bgs sample was collected at 8.5 feet bgs because of bedrock refusal at 8.5 feet bgs.
		Soil	6									X																								X		
		Soil	11									X																										
SLBS3136	~98 feet west of SLBS3084.	Soil	0.5									X																								X		Samples collected at SLBS3084 from 5.5 to 6 ft bgs have lithium concentrations above SCLs. Refusal is at 3.5 ft bgs. SLBS3136 is to bound SLBS3084 to the west and SLBS3083 to the north.	The 11-foot-bgs sample was not collected because of bedrock refusal at 4.5 feet bgs. The 6-foot-bgs sample was collected at 4.5 feet bgs because of bedrock refusal.
		Soil	6									X																								X		
		Soil	11									X																										
SLBS3137	~93 feet north of SLBS3084.	Soil	0.5									X																										Samples collected at SLBS3084 from 5.5 to 6 ft bgs have lithium concentrations above SCLs. Refusal is at 3.5 ft bgs. SLBS3137 is to bound SLBS3084 to the north.	The 6- and 11-foot-bgs samples were not collected because of bedrock refusal at 1.5 feet bgs.
		Soil	6									X																										
		Soil	11									X																										
SLBS3138	~99 feet north of SLBS3085.	Soil	0.5									X																								X		SLBS3085 has exceedances of lithium at 0.5, 6, and 10 and potassium at 6 ft bgs. Refusal is at 10.5 ft bgs. SLBS3138 is to bound SLBS3085 to the north and SLBS3084 to the east.	The 11- and 16-foot-bgs samples were not collected because of bedrock refusal at 4.5 feet bgs. The 6-foot-bgs samples were collected at 4.5 feet bgs because of bedrock refusal.
		Soil	6									X																								X		
		Soil	11									X																								X		
		Soil	16									X																										

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																	Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLBS3139	~95 feet east of SLBS3085.	Soil	0.5										X																					X		SLBS3085 has exceedances of lithium at 0.5, 6, and 10 and potassium at 6 ft bgs. Refusal is at 10.5 ft bgs. SLBS3139 is to bound SLBS3085 to the east.	The 6-, 11-, and 16-foot-bgs samples were not collected because of bedrock refusal at 1.5 feet bgs.
		Soil	6										**X**																					**X**			
		Soil	11										**X**																					**X**			
		Soil	16										**X**																								
SLBS3140	~5 feet northwest of SLBS3103.	Soil	0.5																X				X														Soil sample collected at SLBS3103 from 0 to 0.5 ft bgs has Aroclor 1260 concentrations above SCLs. SLBS3103 is vertically bound. This new location is to bound PCBs on the north bank next to SLBS3103. PCBs are bound downstream of SLBS3103.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6																**X**				**X**														
SLBS3141	~5 feet southeast of SLBS3103.	Soil	0.5																X				X														Soil sample collected at SLBS3103 from 0 to 0.5 ft bgs has Aroclor 1260 concentrations above SCLs. SLBS3103 is vertically bound. This new location is to bound PCBs on the south bank next to SLBS3103. PCBs are bound downstream of SLBS3103.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6																**X**				**X**														
SLBS3142	~5 feet southeast of SLBS3103.	Soil	0.5									X																									Define downstream extent of cadmium at 0.5 foot bgs at CFBS3023.	The 6-foot-bgs sample was not collected because of bedrock refusal at 0.5 foot bgs.
		Soil	6									**X**																										
SLBS3143	~80 ft S of SLBS3135	Soil	0.5										X																					X		Define S lateral extent of lithium and potassium that exceeds SCLs from 0 to 0.5 ft bgs at SLBS3135. Define S lateral extent of lithium that exceeds SCLs from 5.5 to 6 and from 8 to 8.5 ft bgs at SLBS3135.	The 6-, 8.5-, and 13.5-foot-bgs samples were not collected because of bedrock refusal at 2 feet bgs.
		Soil	6										**X**																					**X**			
		Soil	8.5										**X**																								
		Soil	13.5										**X**																								
SLBS3144	~97 ft SW of SLBS3135	Soil	0.5										X																					X		Define SW lateral extent of lithium and potassium that exceeds SCLs from 0 to 0.5 ft bgs at SLBS3135. Define S lateral extent of lithium that exceeds SCLs from 5.5 to 6 and from 8 to 8.5 ft bgs at SLBS3135.	The 6-foot-bgs sample was collected at 3 feet bgs due to bedrock refusal at 3 feet bgs. The 8.5- and 13.5-foot-bgs samples were not collected because of bedrock refusal at 3 feet bgs.
		Soil	6										X																					X			
		Soil	8.5										**X**																								
		Soil	13.5										**X**																								
SLBS3145	~126 ft NW of SLBS3135	Soil	0.5										X																					X		Define NW lateral extent of lithium and potassium that exceed SCLs from 0 to 0.5 ft bgs and lithium from 5.5 to 6 ft and 8 to 8.5 ft bgs at SLBS3135. Define W lateral extent of lithium from 0 to 0.5 ft and from 4 to 4.5 ft bgs at SLBS3136.	The 6-, 8.5-, and 13.5-foot-bgs samples were not collected because of bedrock refusal at 1.5 feet bgs.
		Soil	6										**X**																					**X**			
		Soil	8.5										**X**																								
		Soil	13.5										**X**																								
SLBS3146	~93 ft NW of SLBS3136	Soil	0.5										X																							Define NW lateral extent of lithium that exceeds SCLs from 0 to 0.5 ft and from 4 to 4.5 ft bgs at SLBS3136.	The 4.5- and 9.5-foot-bgs samples were not collected because of bedrock refusal at 2 feet bgs.
		Soil	4.5										**X**																								
		Soil	9.5										**X**																								
SLBS3147	~98 ft NE of SLBS3139	Soil	0.5										X																							Define NE lateral extent of lithium that exceeds SCLs from 0 to 0.5 ft bgs at SLBS3139.	The 6-foot-bgs sample was not collected because of bedrock refusal at 3 feet bgs.
		Soil	6										**X**																								
SLBS3148	~92 ft SE of U9BS2007	Soil	0.5										X																						X	Define SE lateral extent of aluminum that exceeds SCLs from 0 to 0.5 ft bgs at U9BS2007. Define SE lateral extent of lithium that	The 4-, 6-, and 9-foot-bgs samples were not collected because of bedrock refusal at 0.5 foot bgs.

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																	Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
		Soil	4										X																								exceeds SCLs from 3.5 to 3.75 ft bgs at U9BS2007.	
		Soil	6																																X		
		Soil	9										X																									
SLBS3149	~89 ft W of SLBS3145	Soil	0.5										H																						H		If SLBS3145 has lithium or potassium that exceeds SCLs, then these samples at SLBS3149 will be released from hold to help define lateral extent.	None. The 6-, 8.5-, 13.5-, and 18.5-foot-bgs samples were not analyzed because lithium or potassium did not exceed SCLs at SLBS1345.
		Soil	6										H																						H			
		Soil	8.5										H																									
		Soil	13.5										H																									
		Soil	18.5										H																									
SLSV3001	~35 feet west of SLBS2141	Soil Vapor	5.5		X																																Define northwestern lateral extent of 1,1,2-trichloro-1,2,2-trifluoroethane exceeding SCLs from 5 to 5.5 feet bgs at SLSV2029.	None. The 10-foot-bgs sample was not analyzed because the 5.5-foot-bgs sample did not have VOCs exceeding the SVCLs.
		Soil Vapor	10		H																																
SLSV3002	~32 feet west of SLBS1409	Soil Vapor	5.5		X																																Define northeastern lateral extent of 1,1,2-trichloro-1,2,2-trifluoroethane exceeding SCLs from 5 to 5.5 feet bgs at SLSV2029. If refusal is hit shallow, the location will be adjusted towards the northwest.	The 5.5- and 10-foot-bgs samples were not collected because of bedrock refusal at 4.5 feet bgs.
		Soil Vapor	10		H																																
SLSV3003	~29 feet north of SLBS2126	Soil Vapor	5.5		X																																Define northeastern lateral extent of trichloroethene exceeding SCLs from 7 to 7.5 feet bgs at SLSV04. Define northwestern lateral extent of trichloroethene exceeding SCLs at 2 feet bgs at SLSV14.	The 5.5- and 10-foot-bgs samples were not collected because of bedrock refusal at 5.2 feet bgs.
		Soil Vapor	10		H																																
SLSV3004	~64 feet west of SLBS2002	Soil Vapor	5.5		X																																Define northern lateral extent of trichloroethene exceeding SCLs from 2 to 2 feet bgs at SLSV18.	The 5.5- and 10-foot-bgs samples were not collected because of bedrock refusal at 3.5 feet bgs.
		Soil Vapor	10		H																																
SLSV3005	~2 feet south of SLSV2001	Soil Vapor	5.5		X																																The location SLSV2001 was missed in the first field event. It will be collected as SLSV3005 during the second field event. Newly identified undefined feature observed during the 2010/2011 aerial photograph review at CUA 7. Define northeastern extent of benzene (exceeded the SVCL) and toluene exceeded the SVCL) at SLSV1018 (3.5 to 4.5 feet bgs) (50 feet northeast).	None. The 10-foot-bgs sample was not analyzed because the 5.5 foot-bgs sample did not have VOCs exceeding the SVCLs.
		Soil Vapor	10		H																																
SLSV3006	~20 feet east of SV-6.5-2	Soil Vapor	5.5		X																																Define northern lateral extent of trichloroethene exceeding SCLs at 2 feet bgs at SLSV14.	The 5.5- and 10-foot-bgs samples were not collected because of bedrock refusal at 2.8 feet bgs.
		Soil Vapor	10		H																																
SLSV3007	~9 feet east of SLBS1036	Soil Vapor	5.5		X																																Sewer pipeline sample at former sewer station.	The 5.5- and 10-foot-bgs samples were not collected because of bedrock refusal at 3.2 feet bgs.
		Soil Vapor	10		H																																
SLSV3008	~60 feet west of SLBS1417	Soil Vapor	5.5		X		X																														Sample at former Building 3265 based upon new chemical 1,4-dioxane found in BNA00681377.	None. The 10-foot-bgs sample was not analyzed because the 5.5 foot-bgs sample did not have VOCs exceeding the SVCLs.
		Soil Vapor	10		H		H																														

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																														Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SLSV3009	At SLSV2015	Soil Vapor	9.8		X																														The 9.8 ft bgs sampled collected at SLSV2015 was inadvertently not released from hold even though there was an exceedance of TCE in the 6 ft bgs sample. The purpose of sample location SLSV3009 is to recollect the 9.8 ft bgs sample.	The 9.8-foot-bgs sample was collected at 5.5 feet bgs because of bedrock refusal at 8.5 feet bgs.
RS-40 (Monitoring well installed to replace PZ-040)	Near PZ-040	Groundwater	N/A	X		X		X	X									X	X		X	X	X	X			X									A new well is scheduled to be installed in 2014 near PZ-040. PZ-040 is an ideal location for groundwater monitoring for this location; however, it is dry and cannot be sampled. For the purposes of CC 6, the well will be sampled for dioxins/furans; VOCs (formaldehyde and naphthalene); SVOCs (bis(2-ethylhexyl)phthalate, di-n-butylphthalate, 2-methylnaphthalene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene2, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene); DRO (C12-C14, C14-C20, C15-C20, C20-C30, C21-C30); GRO (C8-C11); ORO (C30-C40); inorganics (fluoride); metals (antimony, cadmium, copper, lead, mercury, silver, and zinc) once installed. For the purposes of CC 8, the well will be sampled for dioxins/furans, SVOCs (bis(2-ethylhexyl)phthalate, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, and pyrene), DRO (C21-C30), and cadmium once installed. For the purposes of CUA Cluster 9, the well will be sampled for dioxins/furans, VOCs (naphthalene and TCE), SVOCs (bis(2-ethylhexyl)phthalate, butyl benzylphthalate, diethyl phalate, di-n-butylphthalate, NDMA, 2-methylnaphthalene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene2, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene), PCBs (Aroclor-1260), DRO (C15-C20, C20-C30, C21-C30), ORO (C30-C40), energetic (perchlorate), inorganics (fluoride), metals (antimony, beryllium, boron, cadmium, copper, lead, mercury, molybdenum, selenium, silver, and zinc) once installed.	None. The proposed monitoring well is installed as RS-40. NDMA and formaldehyde were inadvertently missing from the planned sampling table, but they were discussed in the rationale/objectives text. These have now been added to the table for consistency.
ES-26	~40 feet northwest of SLSP01	Groundwater	N/A																									X							Groundwater samples are proposed for the analysis of pesticide (mirex) to support the ongoing vadose zone mass flux to groundwater evaluation for CC 1.	Well was not sampled due to being dry in 2014Q3 and 2015Q1.
WS-09A	~202 feet east of SLSV2011	Groundwater	N/A					X																											Groundwater samples are proposed for the analysis of ORO to support the ongoing vadose zone mass flux to groundwater evaluation for CC 10.	Well was not sampled - connected to the groundwater interim measures system and system was not active/running in 2014Q3 and 2015Q1.

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																															Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
SP-882	~104 feet south of U9BS2011	Groundwater	N/A			X										X			X				X													Groundwater samples are proposed for the analysis of SVOCs (bis(2-ethylhexyl)phthalate, di-n-butyl phthalate), dioxins/furans, PCBs (Aroclor-1254) and silver to support the ongoing vadose zone mass flux to groundwater evaluation for CC 12.	None.
RD-67	~217 feet northeast of U9BS2010	Groundwater	N/A	X		X		X	X																											Groundwater samples are proposed for the analysis of VOCs (naphthalene); SVOCs (bis(2-ethylhexyl)phthalate, di-n-butylphthalate, and benzo(a)anthracene); ORO; and metals (aluminum, boron, lithium, potassium, selenium, silver, and thallium) to support the ongoing vadose zone mass flux to groundwater evaluation for CC 11.	None.
HAR-17	~420 feet east of SLBS1025	Groundwater	N/A			X																X														Groundwater sampling is also proposed for analysis of n-nitrosodimethylamine and benzo(a)pyrene from monitoring wells HAR-17 based on the reporting limit sensitivity analysis.	None. NDMA was inadvertently missing from the planned sampling table, but it was discussed in the rationale/objectives text. This has now been added to the table for consistency.
HAR-18	~16 feet southwest of SV-6.5-4	Groundwater	N/A	X		X		X						X					X				X													Groundwater samples are proposed for collection for the analysis of VOCs (methanol); SVOCs (1-methylnaphthalene); KRO; and ORO to support the ongoing vadose zone mass-flux-to-groundwater evaluation for CC 1. Groundwater samples are proposed for the analysis of dioxins/furans; VOCs (methanol, n-butylbenzene, and sec-butylbenzene); SVOCs (1-methylnaphthalene, 2-methylnaphthalene, and pyrene); PCBs (Aroclor-1254 and Aroclor-1260); ORO; and molybdenum to support the ongoing vadose zone mass-flux-to-groundwater evaluation for CC 2. Groundwater sampling is also proposed for analysis of benzo(a)pyrene from monitoring wells HAR-18 based on the reporting limit sensitivity analysis.	None.
HAR-32	~9 feet southwest of SLSV1007	Groundwater	N/A			X																														Groundwater sampling is also proposed for analysis of benzo(a)pyrene from monitoring wells HAR-32 based on the reporting limit sensitivity analysis.	Well was not sampled due to being dry in 2014Q3 and 2015Q1.

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																														Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		
RD-55A	~28 feet southwest of PZ-036	Groundwater	N/A			X		X											X				X			X		X								Groundwater samples are proposed for collection from monitoring well RD-55A for the analysis of dioxins/furans; SVOCs (1-methylnaphthalene, 2-methylnaphthalene, and pyrene); PCBs (Aroclor-1254); ORO; herbicides (2,4,5-T, 2,4-D, MCPA, and Silvex); and hexavalent chromium to support the ongoing vadose zone mass-flux-to-groundwater evaluation for CC 3. Groundwater sampling is also proposed for analysis of benzo(a)pyrene based on the reporting limit sensitivity analysis.	None.
RD-55B	~16 feet north of PZ-036	Groundwater	N/A			X																														Groundwater sampling is also proposed for analysis of benzo(a)pyrene based on the reporting limit sensitivity analysis.	None.
RD-58A	~9 feet south of SLBS2095	Groundwater	N/A	X		X		X											X							X		X	X							Groundwater samples are proposed for the analysis of VOCs (methanol); SVOCs (1-methylnaphthalene, 2-methylnaphthalene, and pyrene); PCBs (Aroclor-1254 and Aroclor-1260); ORO; herbicides (2,4,5-T, 2,4-D, 2,4-DB, MCPA, and Silvex); pesticides (Mirex); and hexavalent chromium to support the ongoing vadose zone mass-flux-to-groundwater evaluation for CC 4. Groundwater samples are proposed for the analysis of SVOCs (pyrene) and ORO to support the ongoing vadose zone mass-flux-to-groundwater evaluation for CC 7. Groundwater sampling is also proposed for analysis of benzo(a)pyrene from monitoring wells RD-58A based on the reporting limit sensitivity analysis.	None.
RD-58B	~73 feet southwest of SLBS2039	Groundwater	N/A			X																														Groundwater sampling is also proposed for analysis of benzo(a)pyrene based on the reporting limit sensitivity analysis.	None.
RS-13	~195 feet east of SLSV2011	Groundwater	N/A	X																																Groundwater sampling is also proposed for analysis of 1,2,3-trichloropropane and 1,2-dibromo-3-chloropropane from monitoring wells RS-13 based on the reporting limit sensitivity analysis.	Well was not sampled due to being dry in 2014Q3 and 2015Q1.

Total Soil Samples for Analysis	7	0	37	0	4	43	18	4	51	44	0	11	18	6	0	39	2	2	2	98	2	7	0	2	13	0	2	4	2	2	3	16	2
Total Soil Samples on Hold	8	0	1	1	1	1	0	0	0	5	0	0	0	0	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	2	0
Total Soil Vapor Samples for Analysis		9																																	
Total Groundwater Samples for Analysis	5	0	10	0	6	2	0	0	0	0	1	0	1	0	1	5	0	1	2	4	1	0	2	1	2	2	0	0	0	0	0	0	0
Total Groundwater Samples on Hold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Soil Samples to be Collected	265
Total Soil Vapor Samples to be Collected	17
Total Groundwater Samples to be Collected	13
Total Number of Locations Proposed for Sampling	136

Color designations represent:

Red text indicates that the sample could not or was not collected due to deviations from the work plan.

Purple text indicates that the samples were released from hold based on evaluation of sample results. All other hold samples were not analyzed following evaluation of results from implementation of sampling.

Blue text indicates a location, sample, or analysis was added.

Appendix E

Deviations from 2014 Planned Sampling for STL-IV RFI Site

RCRA Facility Investigation, Data Summary and Findings Report, Systems Testing Laboratory IV RFI Site, Boeing RFI Subarea 5/9 South, Santa Susana Field Laboratory, Ventura County, California

Location ID	Location	Matrix	Sample Depth (feet bgs)	Analytical Method																																	Rationale/Objectives	Deviations
				VOCs (Full)	VOCs (Soil Vapor)	SVOCs	1,4-dioxane	TPH	Metals	Antimony	Arsenic	Cadmium	Lithium	Molybdenum	Selenium	Silver	Sodium	Mercury	PCBs	Energetics	Formaldehyde	NDMA	Dioxins and Furans	Perchlorate	Cyanide	Herbicides	Inorganics	Chromium VI	Pesticides	Alcohols	Grain Size	Percent Fines	Atterberg Limits	TICs	Potassium	Aluminum		

Notes:

X = Analyze sample

H = Hold sample analysis until instructed by PM

VH = Vapor intrusion hold sample. Vapor intrusion will be collected and evaluated using a soil sample at this location if a soil vapor sample cannot be collected.

Acronyms:

bgs = below ground surface

CC = CUA clusters

CUA = chemical use area

DQO = data quality objective

DTSC = California Environmental Protection Agency, Department of Toxic Substances Control

MDL = method detection limit

NA = Not applicable

NDMA = n-nitrosodimethylamine

PCB = polychlorinated biphenyl

RL = reporting limit

STL-IV = Systems Test Laboratory IV

SVCL = soil vapor characterization level

SVOC = semivolatile organic compound

TEQ = toxicity equivalence quotient

TPH = total petroleum hydrocarbons

VOC = volatile organic compound

The samples listed in this table were collected in the second, third, and fourth iterations of sampling during implementation of the Master RFI Data Gap Work Plan (CH2M, 2013). These samples were collected from May to August 2014. Deviations for the first iteration of samples are in the second iteration of the STL-IV Work Plan Addendum (CH2M, 2014)

Sources:

CH2M HILL, Inc. (CH2M). 2013. *Addendum to Master RCRA Facility Investigation Data Gap Work Plan, Boeing RFI Subarea 5/9 South, STL-IV RFI Site, Santa Susana Field Laboratory, Ventura County, California* (STL-IV Work Plan Addendum). May.

CH2M HILL, Inc. (CH2M). 2014. *Addendum to Master RCRA Facility Investigation Data Gap Work Plan - 2nd Iteration, Boeing RFI Subarea 5/9 South, STL-IV RFI Site, Santa Susana Field Laboratory, Ventura County, California* April.